

INTERNATIONAL GEOGRAPHICAL UNION
EUROPEAN REGIONAL CONFERENCE

Symposium
of agricultural typology
and agricultural settlements S.5.



Field trips

HUNGARY

S z e g e d

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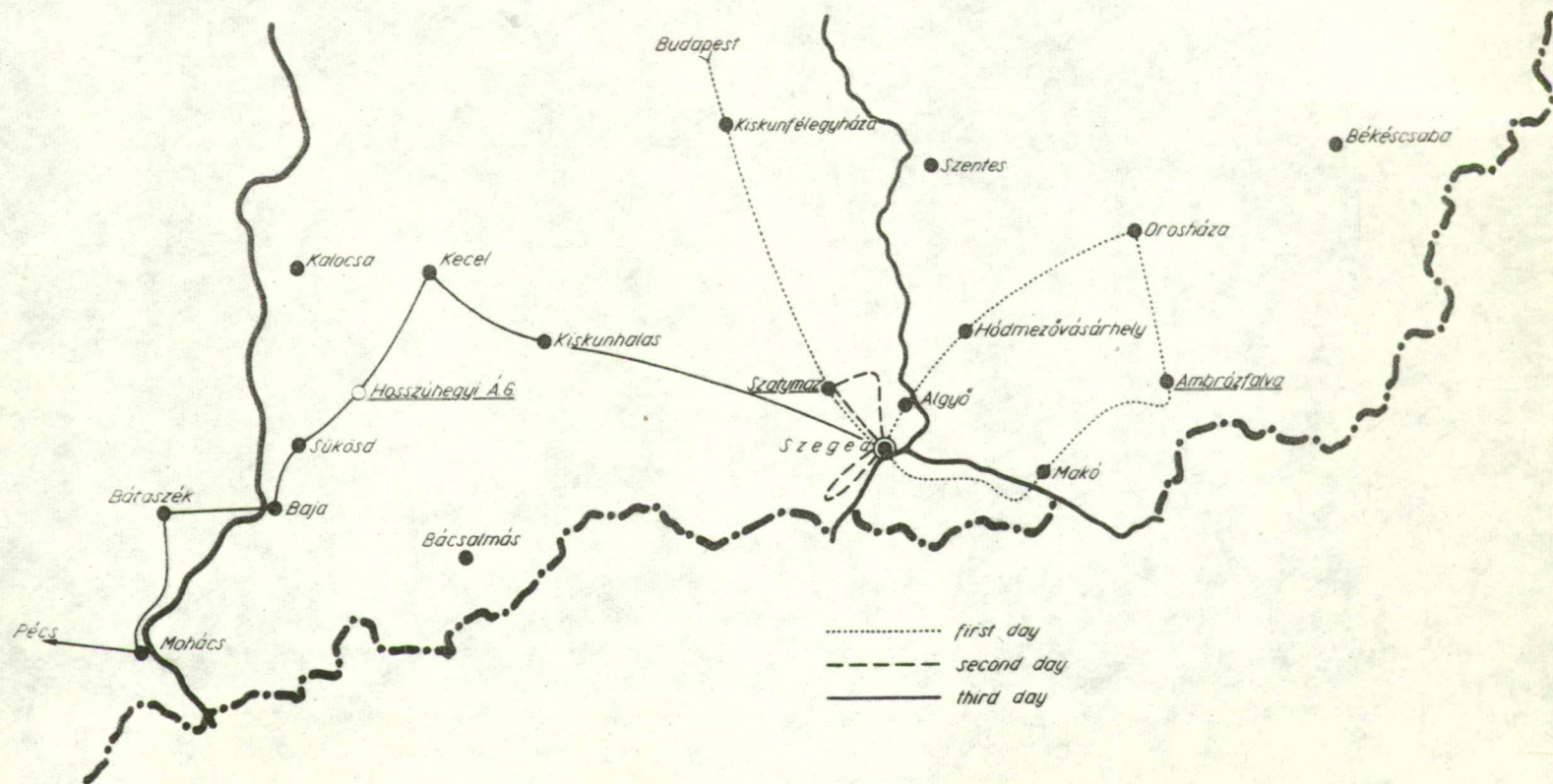


Field trips

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According to the testimony of archaeological finds, Szeged with its environs has been an inhabited place since ancient times. Documents about the from the 12 th century onward are extant. The settlement which became more and more important gained town status in 1246. Till the middle of the 16 th century it was the storing and distributing place of the salt transported from Transylvania on the river Maros, and as such, it had a nationwide importance. It was also the market place of large agricultural areas of different profiles, it had a developing and diversified handicraft industry and, owing to its castle, an important defensive function. The Turkish occupation stalled its development till the end of the 17 th century and transformed its functions. It is characteristic of the peculiar conditions of the 18 th century that the town was then already a cultural center of nationwide importance and also that the witchcraft trials of dark memory took place here.

The capitalist development which began in the 19 th century had a great and favorable influence on Szeged which had an agricultural character then. From the middle of the century onward, food, wood, textile, and building material factories were built one after another. Owing to the building of railroads and bridges across the Tisza, the town became an important traffic center, which gave a new impetus to the development of industry. This development was interrupted by the flood of the Tisza in 1879, which was higher than ever before and ruined the town completely.

The town which historically consisted of three settlement nuclei /Palánk, Felsőváros, Alsóváros/ fused and built with no regular ground plan was rebuilt according to farseeing plans as a system of ring roads and

avenues. This type of ground-plan is unique among provincial towns in Hungary.

The rapid industrial development following the rebuilding was stopped by the First World War and the changes of the borders after it, for these changes gave a decisively large part of the earlier attraction area of the town to the neighbour states. Between the two world wars, although it possessed considerable industry, it remained basically an agrarian town. The university which moved to Szeged from Kolozsvár added to the cultural role of the town.

The development of Szeged after the Liberation can be divided into two stages. The first fifteen years brought a relatively slow development, but the transformation of the structure of professions started already then. From the vast peripheral area of the town /more than 800 km²/ nine new villages were established, and the administrative area of the town was reduced to 112 km². From the sixties onward we have been witnessing the most dynamic stage of the development of the town. Besides the development of the traditional branches of industry, heavy industry is getting an ever increasing role; the cultural, administrative, health service, and commercial role of the town is completed; Szeged is becoming the regional center of the southern part of the Great Plain.

Szeged today is one of the specially developed five towns of the country /Miskolc, Debrecen, Pécs, Győr, Szeged/ which are destined to counterbalance the too great economic and population concentration of Budapest.

It has 120.000 inhabitants, and the annual increase in population is about 2-3000 persons. The number of those employed in the industries is about 40.000. Among its industries the light /hemp, cotton, and clothing/ industry

and the food /milling, meat, and conserve/ industry are still dominant, but the rate of development is faster in the branches of heavy industry /cable, rubber, and iron industries/. The discovery and exploitation of a hydrocarbon basin of nationwide importance has opened a new perspective for the development of industry in Szeged. The house factory under construction is meant to meet the housing requirements of the rapidly growing population.

After Budapest Szeged is the largest educational cultural, and research center of the country.

It is the chief town of Csongrád county, but its controlling and organizational function extends well beyond the boundaries of the county.

Szeged is an important station for both domestic and foreign tourist traffic.

First day

From Ujszeged we go toward Makó, touching on the way Szőreg which has over 5.000 inhabitants and is closely attached to the agglomeration of Szeged. Szőreg, which is famous for its vegetable and flower production, is a part of the outskirts of Szeged, but through its industrial working opportunities exerts itself an attraction on the villages of the vicinity. Its population is rapidly growing. Going on we pass a row of settlements /Deszk, Klárafalva, Ferencszállás, Kiszombor/ on the left bank of the Maros, then crossing the Maros we come to Makó.

Makó, with about 30.000 inhabitants, is an irregularly built town on the right bank of the Maros. It is the center of onion growing. Its industry is weakly developed, the number of its population has been decreasing over a longer period, the age composition of the population is deteriorating.

Its large outskirts connect an extensive area of farmlands with the town. Reconstruction of the town center is going well.

For fifteen kilometers more our route goes through the administrative area of Makó, then passing the farm center Rákos, the village of Csanádalberti chiefly inhabited by Slovaks, and Pitvaros, the microcenter of several small villages, we come to Ambrózfalva.

Ambrózfalva is a village belonging to the Makó district of Csongrád county and situated in an area abutting on Békés county. With scarcely more than 600 inhabitants it is one of the smallest settlements in the Great Plain. Its inhabitants are Slovaks and Hungarians.

Its administrative area of only 11.2 km² is covered by fertile soil. The ratio of arable lands much exceeds the national average.

The village has seven streets, its ground-plan is regular, its farmsteads as private properties have been liquidated. Ninety per cent of its houses have been rebuilt in the last two equipped. There is electricity and water in the village, the gas supply is provided in containers of propane-butane gas. There are good pavements and sidewalks. The standard of equipment of the households, and the supply of lasting consumption goods are above the average of the county.

Although a part of the wage earners are employed in the industry /as commuters in the sugar factory of Mezőhegyes and as local workers in the silicate works made last year/, the decisive proportion of the population live on agriculture. /The number of families with double incomes is considerable./ Those living on agriculture are members of the local Dimitrov Cooperative.

The Dimitrov Cooperative was founded on September 13, 1949 on 240 kh /145.5 ha/ with the participation of 16 poor peasant families. The initial common property consisted of two farm buildings, two water buffaloes, two carts and 20 piglets. Till the end of the 1950's the area of the Cooperative had grown to nearly one thousand Hungarian acres /606 ha/ and the number of the membership to 100 persons, and through gradual development the Cooperative had become one of the best cooperatives in the district. Owing to the good results of common husbandry, by 1961 the number of members had grown to nearly 300 and all the environs of the village had gone over in to the management of the Dimitrov Cooperative. From then on the number of members and the area of Cooperative did not change essentially.

After 1962 the Dimitrov Cooperative won a high placing six times in the national competitions, keeping pace with the ever growing requirements. By using modern forms for work organization control, modern agrotechnics and mechanization the Cooperative achieved the result that its yields grew and their price income has almost doubled in the last five years, and the income of the members reached and then exceeded the the average of the county.

The total territory of the Dimitrov Cooperative is 1834 Hungarian acres /1111.5 ha/, of which 1535 Hungarian acres /930.3 ha/ are plowland. Thus there are about 5 Hungarian acres /3.0 ha/ for each member.

The change in the structure of crops points in the direction of specialization. On one quarter of the plowland area wheat, on one quarter of it maize, and on about 15 per cent of it onions are grown. Besides these crops fodder plant, alfalfa, silo maize, and sugar-beet growing is important.

In 1962 30 Kg of artificial fertilizer was used per Hungarian acres /i.e. 49.5 kg per ha/. By last year this amount had grown tenfold. Yearly 300-350 Hungarian acres /182-212 ha/ are treated with organic fertilizers. Weeding with chemicals has been used for cereals since 1962 and for maize since 1967.

The machine stock of the Cooperative is considerable and its modernization is now in progress. Repairing and maintenance of the machines is done in the Cooperative's own workshop where skilled workers are employed.

Animal husbandry yields a smaller, though growing, part of the income of the Cooperative. The whole livestock is kept on the central farm and totals about 300 animals. Thus the number of animals is low in comparison with the area.

The livestock consists of 200 head of horned cattle, 1000 hogs, 500 sheep, and 25 horses. The most profitable branch of animal husbandry is hograising.

The yearly income per one member of the Cooperative exceeds 25.000 Ft /833.3 \$/. To this is added the approximately 6.000 Ft /200 \$/ income per member from the household farm units.

Leaving Ambrózfalva we go toward Orosháza through Nagyér whose type of settlement and economy is similar to that of Ambrózfalva, and through the microcenter Tótkomlós with nearly 10.000 inhabitants. We pass through the village of Kardoskut, a center of the hydrocarbon production in Békés county, then we come to Orosháza.

Orosháza, a town of more than 30.000 inhabitants was earlier a typical agrarian settlement. It rose from its environment in the second half of the last century owing to the grain boom and the building of railroads. Even today it is an important traffic center /railroad junction in the

middle of the loess land in Békés and Csanád counties. Its big industry is quite new: besides its milling and poultry processing industries, important glass industry has been established on the nearby natural gas base.

Turning south we go on toward Szeged. The first village on our way is Székkutas which earlier used to belong to Hódmezővásárhely. The village, at present the center of a slowly disappearing area of farmsteads, is an exemplary, wellordered settlement.

After Székkutas we go about 15 kilometers between sodic pasture lands vast cornfields and new grapevine plantations in the vicinity of Hódmezővásárhely. Hódmezővásárhely is the Hungarian town with the largest administrative area an extensive area of farmsteads, with several farm centers in its environs. It has nearly as large an administrative area /469 km²/ as Budapest has /525 km²/ but only 53.000 inhabitants.

On the whole the town of Hódmezővásárhely is a conglomeration settlement which up to most recent times was an agrarian center. Its balance factory, majolica and industry have a nationwide importance. Reconstruction of its center is in progress.

Leaving the town our way goes as far as the Tisza over its administrative area. We pass higherlying, sandy surfaced Kishomok, the chief fruit-supplying area of the town, then an important farm center of it, Kopáncs. This latter is situated in the alluvial area of the river Tisza. Here cultivation /of Indian corn, vegetables, flowers, and rice/ with irrigation is practiced. At Kopáncs we cross the irrigation canal which comes from the Tisza.

Crossing the bridge over the Tisza we come to Algyő. A new road bridge is under construction near by. Algyő a rapidly growing settlement with 6.000 inhabitants the na-

tionwide importance of which is due to the hydrocarbon field opened up at the beginning of the sixties. This field yields about 1 million tons of crude oil and nearly half a billion /500.000.000/ tons of natural gas yearly and its production can be further increased. The oil and natural gas pipes connecting the field with the consumer market /Central Industrial Area/ have been laid down, and the building of local collecting and working up installations and the realization of supplementary investments are in progress. We are going across the developing industrial area which extends as far as Szeged and which now closely attaches Algyő to the agglomeration of Szeged.

We reach Szeged on the side of its newest residential area, Tarján, which is still building.

Second day

Leaving Szeged, we go in the direction of Budapest on road E 5. On the left two new factories, the house factory and the rubber factory, and on the right the famous pond Fehértó can be seen.

Fehértó is one of the largest connected sodic areas in Hungary; its area is 2.500 kh /1515 ha/; of this about 500 kh /303 ha/ is primeval sodic soil, reserve. In the other parts of the pond fisheries have been established; these occupy the southern part of the pond. The fish farm operating here supplies several railroad truck loads of fish for the national economy. The northern part of the pond is the famous reserve which is a paradise of birds. The area has preserved its sodic character while the ponds of the fish farm are filled with fresh water from the Tisza. This is why both salt-water and fresh-water birds can be found here.

After visiting Fehértó we come to the center of the Finnish-Hungarian Friendship Cooperative of Szatymaz, about 10 km from Szeged. The area of the Cooperative is north-west of Szeged on the sandy land between the Danube and the Tisza. Accordingly, the character of the agricultural area is determined by the different kinds of sandy soils.

The Cooperative was founded on January 15, 1961 under the name of Fehértó Cooperative, Szatymaz, with 279 members and a land area of 1771 kh /1073 ha/ in the following distribution:

plowland	1072 kh	/650.0 ha/
orchard	53 kh	/32.15 ha/
vineyard	73 kh	/44.25 ha/
meadow and pasture	528 kh	/320.0 ha/
wood	1 kh	/0.60 ha/
unutilized	54 kh	/32.75 ha/

Total	1771 kh	/1073.0 ha/
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Although plowland constituted the largest part vine-growing and fruit farming on sandy soil were more important in respects of production value. This importance increased in the course of development also territorially. The first quarter of 1964 brought a decisive change when the Fehértó Cooperative and the Szabadság [= Freedom/ Cooperative were united under the name of Finno-Hungarian Friendship Cooperative. Thus the area of the Cooperative grew to 2902 kh /1759 ha/ and is still the crop area of the Cooperative.

Its structure in 1964 was the following:

plowland	1735 kh	/1051.5 ha/
orchard	293 kh	/145.0 ha/
vineyard	189 kh	/114.5 ha/
wood	21 kh	/12.7 ha/
meadow pasture	692 kh	/419.5 ha/
unutilized	26 kh	/15.7 ha/
<hr/>		
Total	2902 kh	/1759 ha/

A change took place also in the field of manpower; 403 families, 410 members and 11 employees belonged to the Cooperative then and constitute still the basis of its manpower.

Owing to the predominant share of the vineyards and orchards in the production value the Cooperative can clearly be classed as belonging to the vine and fruit growing type. In the play a decisive role.

	1964	
vineyard	<hr/>	
	189 kh	/114.5 ha/
	of this non-productive	21 kh /12.7 ha/
orchard	239 kh	/145.0 ha/
	of this non-productive	152 kha /92.1 ha/
	1970	
vineyard	<hr/>	
	153 kh	/92.7 ha/
	of this non-productive	23 kh /13.9 ha/
orchard	234 kh	/141.8 ha/
	of this non-productive	14 kh /8.5 ha/

In the structure of fruit-growing peaches account for nearly 100 per cent; only the new plantations /wild strawberry, summer apple, 1969/ have brought some change; they can be expected to become productive only later. The average harvest of peaches is 36 q/kh, /59.5 q/ha/. The peaches are all sold without storing:

35 per cent of them are bought by the canning factory of Szeged,
15 per cent are sold through MĚK, while
50 per cent are sold by the Cooperative in the larger towns /Budapest, Győr, Sopron, Szolnok/.

The fruits are exported through MĚK. The grapes like the peaches are put on the market without working up or storing. The amount of wine is enough only to meet the demand of the Cooperative itself, greater development is planned for the future.

Besides vine-and fruit-growing determining the basic and main profile there is also plowland plant-growing and livestock farming, while gardening is insignificant. The great extent of sandy area interspersed with sandhills and damp depressions makes plowland cultivation even more difficult. In these places the wind and inland waters cause damage from time to time.

The structure of crops in 1969 was:

wheat	120 kh	/72.7 ha/
rye	350 kh	/212.1 ha/
autumn barley	120 kh	/72.7 ha/
oat	15 kh	/ 9.1 ha/
maize	230 kh	/139.4 ha/
alfalfa	150 kh	/90.9 ha/
silo maize	35 kh	/21.3 ha/
potato	60 kh	/36.4 ha/
paprika	50 kh	/30.3 ha/

Of the plowland the intensively cultivated area is 1.000 kh /606 ha/, irrigated area is 60 kh /36.5 ha/.

The above-listed branches of economy are completed by livestock farming.

The structure of livestock in 1969 was:

horned cattle	82 head
of this number cows	29 "
hogs	300 "
of this number sows	13 "
sheep	637 "
horses	50 "

Modern housing is provided for the livestock in a newly-built cowshed with 100 stalls and a pigsty with 24 stalls. The stock of horses in the Cooperative, which is important only from the point of view of draught power, is diminishing.

The agricultural area per one horse-team was in

1964	1969
16 kh / 9.7 ha/	36 kh /22.2 ha/

Mechanization

Mechanization of the Cooperative is satisfactory, although special machines usable on a sandy terrain are still needed. Repair and maintenance of the machines are done in the repair shop of the Cooperative largely by workers of the Cooperative itself.

The number of tractors and engines

1961	1964	1969
3	8	13

As ancillary workshops of the repair shop there are an electricians' unit and a wellboring unit.

Machine stock

tractors	12 tractor unit	18.8
trucks	4	
trailers	9	
grain combines	1	

The correctness of planned farming is proved by the steady growth of the cumulative and noncumulative production values. The increase of which entails also an increase in the members' incomes, too.

The development of gross incomes:

in 1962	1.466	million Ft	48.867	£
1963	2.396	"	79.867	"
1964	3.686	"	122.867	"
1965	4.107	"	136.900	"
1966	5.243	"	174.761	"
1967	5.727	"	190.900	"
1968	7.083	"	236.100	"
1969	9.444	"	314.800	"

The cumulative production value in 1969 was 17.220 million Ft, that is 574.000 £

The non-cumulative production value in the same year was 14.726 million Ft, that is 490.867 £.

Gross income: 9.444 million Ft, that is 314.800 £.

Distribution of the gross income:

wages: for members 5.020 million Ft, that is 167.333 £
for engaged workers 1.411 million Ft,
that is 47.033 £

social fund	160.000 Ft, that is 5.333 %
cultural fund	40.000 Ft, that is 1.333 %
income tax	52.000 Ft, that is 1.733 %
for the augmenta- tion of the security fund	246.000 Ft, that is 8.200 %
development fund	2.515.000 Ft, that is 83.833 %

The Finno-Hungarian Friendship Cooperative has been farming profitably since its foundation and has won several grand prizes with its products which are chiefly fruits.

After the visit to the Cooperative we return to Szeged first going through Sándorfalva, a village with 6.000 inhabitants, which was founded after the great flood of the Tisza in 1879 and was built according to a regular ground plan.

Then we go round the lake of Fehértó and across the alluvial plain of the Tisza until we reach Szeged.

Third day

From Szeged we go first to the village of Röske, which is famous for paprika growing. Here we get a general view of paprika-growing region of Szeged and we can get acquainted with the agrotechnics and problems of paprika growing. Turning back we go through Szeged and passing Kiskundorozsma we continue our way to the NW toward Kiskunhalas.

Kiskundorozsma is a settlement with more than 10.000 inhabitants. It has grown together with Szeged and is an integral part of the agglomeration of Szeged. It is the industry of Szeged that provides opportunity of work for a large part of its inhabitants.

Passing through Bordány, Üllés and Zsana we go across the sandy region between the Danube and the Tisza. Accordingly the structure of the agriculture changes: vine- and fruit-growing becomes dominant.

Kiskunhalas is a traffic junction in the middle of a wide area of farmsteads. The town, which has an extensive administrative zone and nearly 30.000 inhabitants is becoming industrialized. Owing to its functions in administrative, cultural and public health matters it is the center of the southern part of the sand area.

Passing through the village of Kecel we come to the main stage of this day's trip, the state farm of Hosszuhegy.

The State Farm of Hosszuhegy

The state farm of Hosszuhegy is situated in the southern part of the land between the Danube and the Tisza, between Baja, Kalocsa and Jánoshalma. The larger part of its territory is in the valley of the Danube, the smaller part of it on the elevation of Kecel, on the sandy tableland between the Danube and the Tisza.

Its soils range from meadow soils to structure soils, from quicksand to peat-bog. Its area is 15.750 kh /9.420 ha/, which corresponds to 24461 plowing units. Of this 4500 kh /2.727.3 ha/ is irrigable.

The yearly average number of the workers of the state farm is 1800-2000 persons.

The cumulative production value in 1969 was 210 million Ft /7.000.000 \$ /.

The structure of cultivation is the following:

plowland	7192 kh	4358.8 ha
meadow	292 kh	177.0 ha
vineyard	2146 kh	1300.6 ha
of this productive		
orchard	1472 kh	892.1 ha
of this productive	857 kh	519.4 ha
pasture	3358 kh	2035.2 ha
reed-bed	21 kha	12.7 ha
wood	1165 kh	706.1 ha
unutilized	566 kh	343.0 ha
<hr/>		
Total	17069 kh	10344.8 ha

The state farm of Hosszuhegy is a dynamically developing large agricultural concern in which farming is becoming more and more intensive. In its production pattern gardening and viticulture are dominant. Together with the connected vertical units these branches of cultivation in 1969 accounted for 70 per cent of the products marketed.

The legal predecessor of the state farm of Hosszuhegy was the state farm of Nemesnádudvar which was founded on 800 kh /484.8 ha/ in the fall of 1949. Its territory consisted of several fields, fallow plowlands and fallow vineyards. Owing to commassation this territory grew to 3500 kh /2121.2 ha/ in 1953 the state farms were specialized. A part of the plowlands of the farm was attached to the state farm of Hildpuszta.

The state farm of Hosszuhegy was founded in the vicinity of the villages of Nemesnádudvar and Hajós on the remaining 2500 kh /1515.2 ha/ of sandy area. The farm began planting fruit trees with middle-sized trunks on 600 kh /363.6 ha/ as early as 1953. The trees were planted

according to the then usual agrotechnics, at a loxlo row and stock space. The final territory of the state farm of Hosszuhegy was formed in 1961 as a result of the unification of lands in the region of Nemesnádudvar, Hajós, Sükösd, Császártöltés, and Érsekcsanád. Development of the farm and implementation of the investments began after all on the resulting area of 17069 kh /10344.8 ha/. The large scale planting program increased the row space of the vine-stocks thus making mechanized cultivation possible. Elimination of old and inadequate vineyards began together with planting and is still going on.

The changes in the vineyard areas are shown in the following table:

	productive vine- yard ha		total area ha		planted ha		cutout ha	
1961	834	505.5 ha	1477	895.2	100	60.6	-	-
1962	957	580.0	1545	936.4	202	122.4	234	141.8
1963	1009	611.5	1834	1111.5	487	295.2	198	120.0
1964	731	443.0	1931	1170.3	263	159.4	166	100.6
1965	787	447.0	2057	1246.7	166	100.6	40	24.2
1966	1036	627.9	2169	1315.4	112	67.9	-	-
1967	1214	735.8	2216	1343.0	47	28.5	-	-
1968	1472	892.1	2146	1300.6	78	47.3	148	89.7

Planted and cut out in 8 years total 1455 /881.8/ 786 /476.4/. This state farms leads in the mechanization of wide-spaced plantation on sandy soil. Among other things it was at this farm that the spraying and dusting machine with a slung ventilator, the deep-manuring aggregate, and the pneumatic opening machine were developed. The state farm actively cooperated with the Experimental Institute for Agricultural Machines in the working out of the mechanization of the other work phases as well.

As a result of a large-scale planting program, the amount of grapes harvested grew.

Amount of grapes produced between 1961-1968.

	harvested	sold	processed
	q	q	
1961	23 703	511	23 192
1962	14 309	431	18 878
1963	20 111	2 268	17 843
1964	28 886	12 188	16 698
1965	23 377	17 284	15 093
1966	33 620	16 480	17 140
1967	32 550	-	32 550
1968	57 141	806	56 335

Parallellly with the plantations becoming productive, development of vertical units became a necessity. In 1966 the state farm a modern processing, storing and bottling unit at a cost of 55 million Ft /1833 333 ~~q~~ / which was ready in its final form in 1970. The beneficial effect of the storage room is already felt. The modern bottling aggregate makes it possible to fill about 3 million bottles a year. Besides viticulture and the connected vertical workshop units fruit-growing and connected vertical units also represent a considerable production value at the farm. Planting of fruit-trees on the farm started at the beginning of the 1950's. According to the agrotechnics of that time or the state of mechanization fruit trees with middle-sized trunks were planted at 10x10 spaces. In the sixties emphasis was laid on the plantation of espalier fruit trees at 7x4 planting spaces. After 1963 only hedge-type winter apple trees were planted, and part of the espalier orchards planted earlier were also transformed into

the hedge-type. The stone fruit trees planted in 1962, 1963, 1964, 1965, and 1966 have low trunks and are thickly spaced.

Thanks to rational planting and care more than 1000 freight car loads of winter apples have been harvested, stored or sold within a few years. On such a large scale the development of vertical units is indispensable. Therefore the state farm has built a cold-storage house large enough for 400 freight car loads and a fruit processing unit with a capacity of 800 freight car loads.

The territorial distribution of fruits

			of this non-productive	
winter apples	730 kh	442.4 ha	65 kh	39.4 ha
peaches	125 kh	75.8 ha	2 kh	1.2 ha
apricots	100 kh	60.6 ha	47 kh	28.5 ha
morellos	33 kh	20.0 ha	33 kh	20.0 ha
strawberries	30 kh	18.2 ha	30 kh	18.2 ha

			of this non-productive	
<u>winter apple</u>				
with middle-sized trunk	loxlo condensed to		422 kh	255.8 ha
espalier	lox5		63 kh	38.2 ha
	7.5x4.5, 4x3, 5x2			
hedge-type	5x3, 4x2, 5x3.33,			
	425x3.		245 kh	148.5 ha
Total:			730 kh	442.4 ha

The development of apple crops

1962	2 500 q	1963	36 000 q
1964	23 000 q	1965	16 000 q
1966	16 000 q	1967	68 000 q
1968	34 300 q	1969	60 000 q

The temporary storing of peaches, apricots, and morelloes improves the degree of utilization of the cold storage house.

It seemed useful also to provide for working up of the by-products on the farm. With the best plant protection and harvesting yearly 120 freight car loads of industrial quality fruit must be processed besides the working up of a considerable amount of marc or lees.

The auxiliary processing unit of the farm now performs these tasks excellently.

The distillery produces a yearly 10 million Ft /333,33 \$ / value.

Plowland plant-growing

The farm deals with plowland plant-growing on 7200 kh /4363.6 ha/. Of this area 2800 kh /1697 ha/ of land is irrigable. Plowland plant-growing produces first of all the fodder needed by the livestock but it produces also market plant.

The structure of crops is the following:

autumn wheat	995 kh	603.0 ha	newalfalfa	360 kh	218.2 ha
rye	465 kh	281.8 ha	grassy clover	167 kh	101.2 ha
oat	90 kh	54.5 ha	silo maize	408 kh	247.3 ha
fodder wheat	840 kh	509.1 ha	autumn fodder mixture	37 kh	22.4 ha

maize	925 kh	560.6 ha	vetch mixed with oat	57 kh	34,5 ha
sunflower	162 kh	98.2 ha	cattle turnip	2 kh	1,2 ha
oil flax	168 kh	101.8 ha	green pea	234 kh	141.8 ha
alfalfa	1096 kh	664.2 ha	strawberry	30 kh	18.2 ha
truck garden	10 kh	6.1 ha	vineyard	10 kh	6.1 ha
hop	96 kh	58.2 ha	pay	771 kh	467.3 ha
green manure	258 kh	156.4 ha	flowers, ornamental plants	1 kh	0.6 ha

The average yield of the main plowland plants

	1965		1966		1967		1968	
			q / kh		/ha/			
autumn wheat	15.2	25.1	20.8	34.3	23.4	38.6	23.5	38.8
fodder wheat	15.6	25.7	17.1	28.2	19.8	32.7	19.6	32.3
maize	20.5	33.8	19.8	32.7	24.8	40.9	26.0	42.9
alfalfa	30.4	50.2	48.7	80.4	47.8	78.9	42.5	70.1

The agrotechnics and mechanization of plant cultivation have undergone considerable changes during the past 20 years. In 20 years complex mechanization has been introduced in all fields of plant cultivation, the scythe has been replaced by the SZK-4 combine and hoeing by the use of chemicals in the case of most plants. New, highly productive varieties have been introduced and the average yield of most of the plants have been doubled or trebled.

Animal husbandry

The state farm deals also with cattle and hog raising, hog fattening, and sheep raising.

Livestock farming is being modernized and concentrated now. The plan is to develop two cattle ranches, each with 400 animals, together with the suitable auxiliary units, as well as one concentrated hog farm with a yearly output of 7-8 thousand fattened hogs and 3 sheep farms with altogether 2200 ewes.

The present state of the livestock is:

horned cattle		hogs	
cows	653	brood sows	268
weanlings	339	porkers	2292
young heifers	551	sheep	
store cattle	303	ewes	1723

At present	148	tractors
	36	trucks and passenger cars
	12	combines
	31	irrigating aggregates

operate at the farm which is a machine stock corresponding to the structure of production.

The state farm has been managing its affairs profitably since 1957. Since 1962 it has won the distinctive title of top farm.

After leaving the vine-and fruit-growing sandy area of the state farm of Hosszuhegy we come to the mixed cereal-growing, livestock-raising area of the loess table-land in Bácska and to its center, Baja. This town on the left bank of the Danube has 34.360 inhabitants. It is a commercial town with a historic past. As early as 1406 it had town status and was a center of economic and intellectual life.

Driving along road 51 we reach the town where the monuments and historic buildings of Kálmán Tóth Square and of Béke Square reflect historical traditions. The town has even now important functions in the service of public health culture, and industry. Starting from Béke Square we come first to the so-called western quarter of the town on the other side of the Danube. On the left we can see on the bank of the Kamarás Danube /Sugovitsa/ the gasworks, the Technical College of Water Conservancy, then the biggest industrial establishment of the region, the cloth factory, and on the right the developing new housing estate. Leaving the town we cross the combined road and railroad bridge, which connects the Great Plain with Transdanubia. Between Baja and Bátaszék we cross the valley of the Danube. By the way side there are flood-basin woods, extensions of the game reserve of Gemence /an excellent hunting ground!/ Bátaszék is the center of crossing over the Danube, with a growing building material industry. Going along the edge of the rolling country we come to the old settlement of Mohács which has 19.583 inhabitants. It is the center of an agricultural area. This is accentuated by the hop plantations beside the town. Its developing industry is exemplified by the wood fiber hardboard factory. Crossing the hills of Baranya we come to Pécs.

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